

STATE OF VERMONT  
PUBLIC SERVICE BOARD

Docket No. 7454

Investigation into City of Burlington Electric )  
Department's 2008 Integrated Resource Plan )

Order entered: 2/10/2010

**I. INTRODUCTION**

This Docket is an investigation of the City of Burlington Electric Department's ("BED") Integrated Resource Plan ("IRP") that was filed on June 18, 2008. In this Proposal for Decision, I recommend that the Public Service Board ("Board") approve BED's IRP, and approve a Memorandum of Understanding between the Vermont Department of Public Service ("Department") and BED on BED's IRP that was filed on June 2, 2009 ("MOU"). The MOU provides a supplemental mechanism for BED to use in the event the IRP's decision-making process for portfolio planning fails to provide a clear decisional path for choosing the optimal supply portfolio strategy.

**II. PROCEDURAL HISTORY**

By Order dated May 5, 2005, in Docket 6962, BED was directed to file an IRP on or before May 1, 2008.

On April 30, 2008, BED was granted a two-month extension of time, until July 1, 2008, to file its IRP.

On June 18, 2008, BED filed a petition seeking approval of its newest IRP. I am admitting BED's IRP into evidence in this proceeding as Exhibit BED-1.

On September 10, 2008, I convened a prehearing conference in this docket. The following individuals appeared and participated: Geoffrey A. Commons, Esq., on behalf of the Department; William F. Ellis, Esq., on behalf of BED.

On September 12, 2008, the Department filed a letter advising the Board of its intention to suspend for six months the review of the power-supply portions of several pending IRPs filed by municipal and cooperative electric distribution utilities in Vermont. The Department cited

staffing constraints as grounds for temporarily suspending the review of IRPs, to include the plan filed by BED.

On September 17, 2008, I issued a scheduling Order requiring the parties to file a status report in this proceeding on December 10, 2008.

On October 22, 2008, I conducted a duly-noticed public hearing at the Fletcher Free Library in Burlington, Vermont. One member of the public asked a question concerning the IRP analysis.

On March 27, 2009, the Department filed a letter with the Board advising that its staffing constraints had been resolved, and that it was prepared to resume the full-scale review of certain pending IRPs filed by Vermont's municipal and cooperative electric distribution utilities. The Department announced that it would begin with a review of BED's IRP pending in this docket.

On June 2, 2009, the Department and BED filed a MOU recommending that the Board approve BED's IRP. I am admitting the MOU into evidence in this proceeding as Exhibit Joint-1. (A copy of the MOU is attached hereto as Appendix I).

Based on the evidence in this Docket, I hereby report the following findings and conclusions to the Board in accordance with 30 V.S.A. § 8.

### **III. FINDINGS**

#### **BED's IRP**

1. BED's IRP includes background information on BED and the electric industry in the region. Exh. BED-1 at 1-18 (Sections 1 and 2).

2. BED's IRP includes BED's expected load predictions, transmission and distribution system capacity and expectations, demand-side management programs, and resource portfolio forecasts. Exh. BED-1 generally.

3. BED's IRP uses a combination of scenario planning and decision analysis to assess its supply options. In its analysis, BED modeled and evaluated nine resource portfolio strategies to reflect how BED would serve its load in the future. The scenarios are characterized by a set of assumptions concerning the level of its load, the strength of its energy efficiency measures, and the mix of its energy supply (i.e., market contracts, renewable resources, and combinations of the two). In crafting these assumptions, BED identified the following key drivers: price of natural

gas; value of capacity; the price of wood fuel; and the value of Renewable Energy Credits. Exh. BED-1 at 11 and 22 (Section 1).

4. BED's IRP forecasts anticipated residential, commercial, industrial, and street-lighting loads, including peak demand and total energy requirements. The IRP includes load-sensitivity analyses, which analyze BED's forecasted load under variable and uncertain future predicted outcomes. Exh. BED-1 at 24-42 (Section 3).

5. BED's IRP discusses the transmission and distribution system, with an emphasis on customer safety, minimized system losses, effective vegetative management and plans to implement effective and economical projects to improve system reliability. Exh. BED-1 at 43-61 (Section 4).

6. BED's IRP describes Demand Side Management ("DSM") programs, plans, costs, savings and future opportunities to be pursued. In particular, the plan emphasizes BED's commitment to a new focus on peak savings. Exh. BED-1 at 62-71 (Section 5).

7. BED's IRP analyzes its current resource portfolio; evaluates capacity, duration, and volatility of its portfolio; and describes the diversification strategy BED employs to mitigate the risk inherent in its current and future resource selections. Exh. BED-1 at 79-102 (Section 7).

8. BED used multi-attribute trade-off analysis to evaluate the portfolio strategies. The attributes considered by BED over the 20-year planning period were portfolio cost, portfolio mix and volatility in renewable energy prices, renewable energy volumes and renewable energy credits. The analysis stress-tested the portfolios for scenario changes and market fluctuations. Exh. BED-1 at 93-102 (Section 7).

9. BED's IRP calls for individual appointed Electric Commissioners to provide input into variable probability weightings as part of the plan's decision-making mechanism (the "Decision Tree"). The Decision Tree mechanism does not address how to resolve conflicting assessments among these decision-makers when they provide input into the variable probability weightings. Exh. BED-1 at 22-23 (Section 2).

10. Using the IRP's Decision Tree, the individuals involved in the BED IRP's probabilistic analysis reached a consensus concerning the optimal least-cost supply scenario – High Energy Efficiency, Low Load and All Renewable Supply. Exh. BED-1 at 100-102 (Section 7).

11. BED's IRP probability analysis concludes that the optimal path for achieving least-cost power supply over the 20-year planning horizon is to adopt the goal of acquiring and maintaining an All Renewable Supply portfolio. Exh. BED-1 at 105 (Section 9).

12. BED's IRP includes an action plan for implementing the conclusions identified through its IRP analysis, in particular the goal of achieving an All Renewable Supply portfolio. Exh. BED-1 at 115-118 (Section 10).

13. BED's IRP aims to determine a portfolio best suited to meet BED's needs, as defined therein. It includes an analysis of several possible approaches to meeting those needs, and provides the basis for a preferred alternative and a direction for BED to pursue. The action plan takes the recommendations emerging from the analysis and provides specific steps to aid BED in its day-to-day activities. Exh. BED-1 at 115-118 (Section 10).

#### Memorandum of Understanding

14. The Department and BED have reached an agreement regarding the IRP. They agree that the Board's final Order in this docket may incorporate the conditions and agreements contained in their MOU. Exh. Joint-1 at 1.

15. The Parties agree that BED's IRP describes a reasonable decision-making process for meeting the public's need for energy services, after safety concerns are addressed, at the lowest present-value life-cycle cost, including environmental and economic costs, through a strategy combining investments and expenditures on energy supply, transmission and distribution capacity, transmission and distribution efficiency, and comprehensive energy efficiency programs. Exh. Joint-1 at 1.

16. The MOU provides that approval of BED's IRP would not constitute approval of any particular decisions, analytic methods, or tools, and would extend only to the decision-making processes described in the IRP. The MOU provides that BED has a continuing duty to monitor key uncertainties and accuracy of assumptions and data in the IRP, as well as to continue to reevaluate the merits of its decision-making processes and the merits of its decisions. Exh. Joint-1 at 3-4.

17. The MOU provides a supplemental mechanism for BED to use in the event the IRP's decision-making process for portfolio planning fails to provide a clear decisional path when there is no consensus among BED's decision makers in choosing the optimal supply portfolio strategy. Exh. Joint-1 at 2-3.

#### **IV. DISCUSSION**

30 V.S.A. § 218(c) sets out the statutory standard that BED's IRP must meet. Section 218(c) describes a "least-cost integrated plan" as:

a plan for meeting the public's need for energy services, after safety concerns are addressed, at the lowest possible present value life cycle cost, including environmental and economic costs, through a strategy combining investments and expenditures on energy supply, transmission and distribution efficiency, and comprehensive energy efficiency programs.<sup>1</sup>

The statute provides that the Board may approve a company's least-cost plan if it complies with the requirements of this definition. However, the statute does not specify what Board approval of an IRP means.

In the MOU, the Department and BED have agreed that approval would encompass the decision-making processes included in the IRP, but it would not include the specific decision-making tools, analytical methods, or outcomes described in the IRP. This is consistent with previous Board decisions regarding the scope of approval of an IRP.<sup>2</sup> Accordingly, I recommend that the Board determine that approval of BED's current IRP would extend to the decision-making processes included in the IRP, but not the specific decision-making tools, analytical methods, or outcomes described in the IRP.

The Department and BED have also agreed in the MOU to a mechanism that supplements the IRP's existing Decision Tree analysis. BED's IRP decisional process for choosing a plan for achieving the least-cost power supply presently depends on subjective input from several appointed Commissioners and BED staff members in assessing the probable price ranges for

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1. 30 V.S.A. § 218(c)(a)(1)

2. See, e.g., Docket 6854, Order of 3/9/04, generally.

various power supply portfolio configurations.<sup>3</sup> Absent the mechanism provided for in the MOU, BED's IRP would contain no clear decisional process for moving forward when the subjective input from the decision-makers fails to produce a consensus for how to construct the optimal least-cost power supply portfolio.<sup>4</sup>

For purposes of the IRP under review in this case, nine portfolio scenarios were developed for consideration.<sup>5</sup> The five participating decision-makers differed in almost all of the variable probability weightings they assigned to their judgments in analyzing the nine portfolio scenarios.<sup>6</sup> By coincidence, while they differed in their subjective portfolio price expectations, all five decision-makers ultimately identified the seventh scenario as the optimal portfolio strategy for BED.<sup>7</sup> But had there been no such incidental consensus, the decisional process as originally described in BED's IRP would have provided no rule or mechanism for dealing with disagreement among BED's decision-makers. I am persuaded that the MOU will fortify BED's IRP by providing a process for addressing the foreseeable possibility that consensus may not always be reached among the decision-makers participating in the BED IRP's probabilistic analysis.

BED's IRP adequately addresses the supply-side and the transmission-and-distribution components of least-cost integrated resource planning. BED's IRP analysis included the development of alternative resource portfolios that are representative of generation technologies and contractual arrangements that reflect the range of resource strategies that BED reasonably might pursue.<sup>8</sup> I am persuaded that BED's IRP demonstrates that BED is considering a broad range of resource options to meet its customers' future needs for electricity services at least cost.

Finally, I note that the MOU did not address the filing date for the next BED IRP. Historically, the Board has required utilities to file IRPs every three years. Therefore, I

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3. Exh. BED-1 at 101-102 (Section 7).

4. Exh. Joint-1 at 2.

5. *Id.* at 100.

6. *Id.*

7. *Id.* at 102.

8. Exh. BED-1 at 79-102 (Section 7).

recommend that the Board require BED to file its next IRP on or before June 30, 2011, which is approximately the three-year anniversary of the filing of BED's IRP in this Docket.

After reviewing BED's IRP and the MOU, I find that BED's IRP meets the requirements of 30 V.S.A. § 218(c). Therefore, I recommend that the Board approve BED's IRP and the MOU.

#### V. CONCLUSION

In this Proposal for Decision, I recommend that the Board approve BED's IRP as filed on June 18, 2008. I further recommend that the Board approve the June 2, 2009, MOU between BED and the Department.

In the MOU, the parties waived their right, pursuant to 3 V.S.A. § 811, to comment on a proposal for decision, if I recommended approval of the MOU.<sup>9</sup> Since I am recommending approval of the MOU in its entirety, this Proposal for Decision has not been served on all parties to this proceeding in accordance with 3 V.S.A. § 811.

Dated at Montpelier, Vermont, this 8<sup>th</sup> day of February, 2010.

s/June E. Tierney  
June E. Tierney, Esq.  
Hearing Officer

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9. Exh. Joint-1 at 4.

**VI. ORDER**

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that:

1. The findings and conclusions of the Hearing Officer are adopted.
2. The Integrated Resource Plan filed by the City of Burlington Electric Department on June 18, 2008, is approved.
3. The Memorandum of Understanding between BED and the Vermont Department of Public Service, filed June 2, 2009, is approved.
4. BED shall file its next integrated resource plan on or before June 30, 2011.
5. This docket shall be closed.

Dated at Montpelier, Vermont, this 10<sup>th</sup> day of February, 2010.

<u>s/James Volz</u>	)	
	)	PUBLIC SERVICE
	)	
<u>s/David C. Coen</u>	)	BOARD
	)	
	)	OF VERMONT
<u>s/John D. Burke</u>	)	

OFFICE OF THE CLERK

FILED: February 10, 2010

ATTEST: s/Judith C. Whitney  
Deputy Clerk of the Board

*NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: psb.clerk@state.vt.us)*

*Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further Order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and order.*